

edge. And if he rush into print before having studied the literature of the subject, he is apt to bring discredit upon the whole number of his fellow botanists. Happily (or unhappily?) American botanists are not the only ones who are guilty of this indiscretion, but are the more conspicuous only because the literature of anatomical botany in English is so small, compared with the vast volume of it in German and French. We have frequently to complain of our German friends for neglecting English writings. But they neglect a small portion of botanical literature. If we neglect German and French and Italian we "neglect the weightier matters of the law," and, quoting English writings only, "tithe mint and anise and cummin."

IT HAS OCCURRED to the writer that there has been a good deal of needless decrying of botanical work when compared with that of zoologists. The latter are ready enough to claim, and botanists are too ready to concede, that the science of zoology is far in advance of that of botany. Certain methods are possible in zoology which have not yet been attained in botany, but an unprejudiced examination of the results reached in the forefront of both these sciences will reveal an advance that is remarkably uniform. We do not refer to the work done by the "rank and file," but that of well known leaders. Zoologists are fortunate in having as their stock in trade forms of life in which man is specially interested. For instance, the public that listens with pricked up ears and discusses endlessly concerning the evolution of birds, mammals, and man, and thus brings a certain popularity to zoology, cares not a straw for the wonderful structures of lycopods and gymnosperms. One sort of compensation has been that botanists have been considered a sort of harmless folk; while zoologists are "infidel" or "progressive," apostles of darkness or of light, according to the stand-point of the speaker. Botanical work has been no less effective and advanced in these latter days, but it lacks that possibility of spectacular display which would keep it in the mouth of the public. Monkeys and men the public wants to know about, but pteridophytes and phanerogams are decidedly prosy. It will be found, upon a fair examination, that botany and zoology are so mutually dependent and helpful that one can not advance without the other.

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## OPEN LETTERS.

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### Vitality of seeds.

In addition to the observation on this subject in Vol. XII, p. 297, the following, which I recently gave in the *Florida Farmer and Fruit Grower*, may be of interest: In the summer of 1885, a quantity of muck was taken from two feet below the surface in a marsh, and covered with a Wardian case, exposing about six square feet of surface. Only one plant germinated, *Pilea pumila*, common in the locality. The sample was taken



with considerable care, but the entrance of the single seed through surface soil was not impossible. At the same time six samples of sandy soil were taken, three from the surface and three from two feet or more below. They were exposed in earthen pots, covered with panes of glass, and kept moist. The samples from the surface became covered with the grasses and weeds of the locality, and those from deeper developed nothing.

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#### Mr. Pringle in Mexico.

All who read the GAZETTE will be glad to learn of the safe return to his Vermont home of Mr. C. G. Pringle. He has had a "hard struggle this year in North Mexico with drought and other adverse circumstances," being able to collect to advantage for only two autumn months. His field of operations was in the highlands of West Chihuahua, and, in spite of the "adverse circumstances" under which he labored, he has secured his usual quota of treasures, every specimen of which bears the stamp of the collector.

In regard to the grasses I wish to say that, considering the large number of species collected in Mexico in recent years, both by Mr. Pringle and Dr. Palmer, the number of apparently new species or forms is surprisingly large. Of the forty-five sheets of grasses of the present collection, received by me, there are thirty-five species new to Mr. Pringle's *Plantæ Mexicanæ*, and among these twelve are probably new species or varieties.

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#### Is the strawberry poisonous? \*

The editorial in the November number of the GAZETTE in regard to plant poisoning leads me to make the present record of an interesting case which has come under my personal observation. A friend and neighbor, a gentleman now advanced in years, is so afflicted by the fresh fruits of the common strawberry that he is unable even to go into a room where they are without suffering serious consequences. As a boy, he was accustomed to the use of strawberries without apparent injury; but when about fourteen years of age he was taken violently and suddenly ill, accompanied by an irritating cutaneous rash, from eating moderately of field strawberries. The attack was so sudden and severe that he had to be carried from the field to the house. From this time to the present, a period of some sixty years, he has been unable to eat even a single strawberry without causing a more or less severe recurrence of the difficulty. On one occasion, some ten years after the first attack, hoping that he might have outgrown the trouble, he indulged in eating a few berries at a tea party, but was taken ill so suddenly that he was obliged to leave the table and retire to his room, where he was sick in bed for a day or two afterward. The first symptom of an attack is the appearance of the burning and itching cutaneous rash, which always begins behind the ears and spreads rapidly over the body; in the instance last mentioned, covering the whole body within an hour. Of course, he has long since learned to avoid strawberries as he would a dangerous plague; but he is so susceptible to the poisonous influence that the mere passing along the walk near a fruit stand where strawberries are exposed for sale is sufficient to cause a slight development of the cutaneous rash.

\* Dr. White of Harvard Medical School writes me (Feb. '89) that he treats several such cases every year, — see letters, in file.